

## REMARKS

The November 17, 2008 Office Action for the above referenced application contains rejections of the pending claims on the basis of two references. The references are:

1) previously disclosed reference U.S. Patent 5,812,988 (hereinafter, Sandretto) which discloses an invention for back-fitting a value for a portfolio of assets to a known portfolio value by iterating the value of an input variable, the discount rate, for each item in the portfolio. Sandretto provides additional evidence of the novelty, non-obviousness and newness of the claimed invention in a number of ways including:

a) Teaching away from the methods of the above referenced application by teaching the use of a single stage modeling technique for back-fitting the value of a plurality of individual assets to an overall portfolio value. By way of contrast, the innovative system of the present invention uses a multi-stage process that models and quantifies causal relationships between indicators and elements of value and aspects of financial performance;

b) Teaching away from the methods of the above referenced application (and all Asset Trust applications) by teaching the use of input variable adjustments that reduce an overall error measure as part of model development. By way of contrast, the innovative system of the present invention (and almost all Asset Trust applications) teaches a model development method that does not adjust the value of a single input variable;

c) Teaching away from the methods of the above referenced application (and almost all Asset Trust applications) by teaching that there is only one way to change value – change the value of cash flow. By way of contrast, the innovative system and method described in the above referenced application (and all Asset Trust applications) teaches and relies on the fact that there are at least four ways to change value between one point in time and another point in time: change the value of cash flow, change the value of the elements of value, change the value of growth options and change the value of market sentiment. A comparison of these teachings is summarized in the table below:

Value change per 10/750,792	Value change per Sandretto
1. Change value of cash flow, 2. Change value of elements of value, 3. Change value of growth options & 4. Change value of market sentiment	1. Change value of cash flow

d) Teaching away from the methods of the above referenced application (and most Asset

Trust applications) by teaching the identification of an item value. By way of contrast, the innovative system of the present invention (and most Asset Trust applications) teaches the identification of a causal relationship between a model of one or more elements of value and an observed value for another, related entity; and

e) Teaching away from the methods of the above referenced application by teaching discount rate adjustment as part of model development. By way of contrast, the innovative system of the present invention (and most Asset Trust applications) teaches the use of a single discount rate (the cost of capital) for all calculations.

2) U.S. Patent 6,012,053 (hereinafter, Pant). Pant teaches a relevance determination and sorting method that involves:

1. receiving a set of search results from a query where each search result has a plurality of attributes,
2. receiving input from a user that identifies the relevance factors and weightings that will be used to evaluate the attributes of the search results,
3. assigning a weight to identified attributes in each of the search results supplied in step 1 based on the relevance factors supplied in step 2,
4. summing the weights and outputting a score for each of the items in the search query based on the results from step 3, and
5. sorting the set of search results in an order ranked according to the score of each item.

Pant provides additional evidence of the novelty, non-obviousness and newness of the above referenced application in a number of ways including:

a) Teaching away from the methods of the above referenced application by teaching a method that identifies a relevance measure based on the attributes of the search result. By way of contrast, the innovative method and system of the present invention identifies a relevance measure based on a quantified financial impact.

b) Teaching away from the methods of the above referenced application by teaching a method that requires user input of subjective relevance factors. By way of contrast, the innovative method and system of the present invention identifies the relevance of keywords without using any input from the user regarding relevance factors.

c) Teaching away from the methods of the above referenced application by teaching a method that starts with a search that identifies potentially relevant results. By way of contrast, the innovative method and system of the present invention starts with a search that

identifies keyword characteristics.

d) Teaching away from the methods of the above referenced application by teaching a method that requires user input of subjective relevance factor weights. By way of contrast, the innovative method and system of the present invention identifies the relevance of keywords without using any input from the user regarding weights of any kind.

e) Teaching away from the methods of the above referenced application by teaching a method that identifies the relevance of a web page or document. By way of contrast, the innovative method and system of the present invention identifies the relevance of keywords. The above discussion also provides substantial evidence that the references were selected because they contained a few words that were the same as those in the claims and not because the provided evidence of obviousness. Taken as a whole, the two references provide substantial additional evidence of the novelty, non-obviousness and newness of the claimed invention by teaching away from all the claimed methods. These differences are summarized in the table below:

Teaching	10/750,792	Pant	Sandretto
Analysis type:	Keyword/Organization	Document/User	Item/Portfolio
Model type	Causal predictive	Scoring	Non causal, discounted cash flow
First stage	Prompt the user to identify keywords	Prompt the user to complete a search	Reduce an error measure by <u>adjusting an input parameter value</u> at the item level in a value model
Second stage	Develop keyword indicators for use as input variables	Receive a set of search result items from a query	None
Third stage	Select input variables that make the most significant contribution to the relevance of a value model using stepwise regression	Prompt the user to identify the relevance factors and weights that will be used to evaluate search result relevance	None

Teaching	10/750,792	Pant	Sandretto
Fourth stage	Identify causal input variables and select the best set of variables using cross validation	Determine a weight for each attribute of each item in the search query based on the input supplied in the third stage	None
Fifth stage	Use the best variables in a plurality of models and select the model with lowest error	Sum the weights for all the attributes for each item to determine a relevance score for each item	None
Sixth stage	Output the keyword indicators and weights (if any) from best model as a relevance measure for the keyword	Sort the set of search result items from the first stage according to the relevance score	None

The selection of the two references described above also provides substantial evidence that those authoring the November 17, 2008 Office Action for the above referenced application lack the level of skill in the art required to author a valid rejection for obviousness and/or for an alleged written description or utility deficiency. The latter statement was made because it is well established that the "hypothetical 'person having ordinary skill in the art' to which the claimed subject matter pertains would, of necessity have the capability of understanding the scientific and engineering principles applicable to the pertinent art." Ex parte Hiyamizu, 10 USPQ2d 1393, 1394 (Bd. Pat. App. & Inter. 1988). No one who understood the scientific and engineering principles applicable to the pertinent art would ever suggest:

- 1) the use of an invention (Sandretto) that completely relies on the adjustment of an input variable to identify relationships between items in a portfolio and a portfolio value in an attempt to render obvious an invention that develops and outputs keyword relevance measures without relying on the adjustment of a single input variable,
- 2) the use of an invention (Pant) that identifies the relevance of a web page or document on the basis of subjective, user-supplied relevance factors and weightings in an attempt to render obvious an invention that identifies the relevance of keywords on the basis of weights from a causal model, and/or
- 3) the use of two inventions (Sandretto and Pant) that would both be required to change their principle of operation to render obvious the claimed invention. Sandretto would have to change from the adjustment of a single input variable to reduce an error measure to

variable selection based on enhanced relevance and causality and Pant would have to change from developing and using a measure based on subjective, user-supplied weightings to developing and using a measure based on quantified changes in a financial measure.

A review of other Office Actions authored by the Examiner(s) for the above referenced application shows that they provide substantial evidence that the Examiner(s) who authored the instant Office Action do(es) not appear to understand any of the scientific and/or engineering principles applicable to the pertinent art (see Appendix).

### 35 U.S.C. § 101 rejections

In the 17 November 2008 office action, claims 175 - 197 are rejected under 35 U.S.C. §101 as being unpatentable because the Examiner has alleged without evidence that the disclosed invention lacks patentable utility as keyword relevancy to an organization can allegedly not be determined. The Assignee will traverse the rejection of claims 175 - 197 under §101 by noting that the Examiner has failed to establish a prima facie case of non utility. *MPEP 2164.07 states "the examiner has the initial burden of challenging an asserted utility. Only after the examiner has provided evidence showing that one of ordinary skill in the art would reasonably doubt the asserted utility does the burden shift to the applicant to provide rebuttal evidence sufficient to convince one of ordinary skill in the art of the invention's asserted utility. In re Brana, 51 F.3d 1560, 1566, 34 USPQ2d 1436, 1441 (Fed. Cir. 1995) (citing In re Bundy, 642 F.2d 430, 433, 209 USPQ 48, 51 (CCPA 1981))*. The Assignee submits that the Examiner has not met the burden required to establish a prima facie case of non utility as he has failed to provide any evidence to support his assertions.

The second way the Assignee will traverse the § 101 rejections of claims 175 - 197 is by noting that the assertions regarding the alleged lack of utility are not in compliance with the requirements of the Administrative Procedures Act and are therefore moot. In *Dickinson v. Zurko*, 119 S. Ct. 1816, 50 USPQ2d 1930 (1999), the Supreme Court held that the appropriate standard of review of USPTO findings of fact are the standards set forth in the Administrative Procedure Act ("APA") at 5 U.S.C. 706 (1994). The APA provides two standards for review – an arbitrary and capricious standard and a substantial evidence standard. The Assignee submits that the 35 U.S.C. § 101 rejection of claims 175 - 197 in the instant Office Action fails under both standards. It fails under the substantial evidence standard because as detailed above no evidence was presented. The claim rejections also fail under the arbitrary and capricious standard for a number of reasons including:

- a) the U.S.P.T.O fact-finding has provided a reference, Pant, that indicates there is an understanding that the output from the claimed invention has utility in completing a search, and
- b) the U.S.P.T.O. has issued a patent to Pant for completing a subjective relevance determination method and this patent was cited as a reference document.

The third way the Assignee will traverse the §101 rejection of claims 175 - 197 is noting that the claimed invention transforms data representative of an organization into a different state or

thing.

The third reason claims 175 – 197 are patentable is that the claim rejections are non-statutory. The claim rejections are non-statutory because there is no statutory basis for giving any consideration to a lack of utility rejection authored by individuals with a level of skill in the art that is not average or better.

### **35 U.S.C. §103 rejections**

In the 17 November 2008 Office Action claims 175 - 197 are rejected under §103(a) as being obvious given U.S. Patent 6,012,053 (hereinafter, Pant) in view of U.S. Patent 5,812,988 (hereinafter, Sandretto). The Examiner has cited Pant and Sandretto as references. The Assignee traverses the rejections for obviousness in several ways. First, by noting that the claim rejections are not in compliance with the Administrative Procedures Act and are therefore moot. Second, by noting that the Office Action has failed to establish a prima facie case of obviousness. Third, by noting the claim rejections are non-statutory. The claim rejections are non-statutory because there is no statutory basis for giving any consideration to an obviousness rejection authored by individuals with a well documented lack of the required level of average or ordinary skill in the relevant art(s).

The cited combination of documents fails to establish a prima facie case of obviousness for claims 175 - 197 by: citing combinations of documents that teach away from the claimed invention as discussed on pages 7 through 10 of this paper, citing a combination of documents that fails to teach one or more limitation for every claim as discussed on pages 7 through 10 of this paper, failing to explain the combination as required by KSR v Teleflex, teaching a combination that requires a change in principle of operation of the disclosed inventions and teaching a combination that would destroy the ability of one or more of the inventions to function. *MPEP 2143.03 provides that: to establish prima facie obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art (In re Royka, 490 F.2d 981, 180 USPQ 580 (CCPA 1974)).*

### **35 U.S.C. §112 first paragraph rejections**

In the 17 November 2008 Office Action the Examiner has rejected claims 175 - 197 under 35 U.S.C. §112 first paragraph as lacking a written description that would enable those of average skill in the art to make and use the claimed invention. Specifically, the Examiner has made an

unsupported allegation that the invention requires subjective judgments and is by definition unique, arbitrary and subjective.

The Assignee will traverse the §112 first paragraph rejection of claims 175 - 197 in three ways. First, by noting that the Office Action has failed to establish a prima facie case that the specification does not meet the requirements of §112 first paragraph. Second, by noting that the assertions regarding the alleged lack of written description are not in compliance with the both standards of the Administrative Procedures Act and are therefore moot. Third by noting the claim rejections are non-statutory. The claim rejections are non-statutory because there is no statutory basis for:

1. rejecting a patent application because it allegedly requires subjective judgments, and/or
2. giving any consideration to a written description rejection authored by individuals and/or an organization with a well documented lack of the required level of average or ordinary skill in the relevant art(s).

As mentioned previously, the Examiner has failed to establish a prima facie case that the specification does not meet the requirements of §112 first paragraph. MPEP 2163 states that:

*"A description as filed is presumed to be adequate, unless or until sufficient evidence or reasoning to the contrary has been presented by the examiner to rebut the presumption. See, e.g., In re Marzocchi, 439 F.2d 220, 224, 169 USPQ 367, 370 (CCPA 1971). The examiner, therefore, must have a reasonable basis to challenge the adequacy of the written description. The examiner has the initial burden of presenting by a preponderance of evidence why a person skilled in the art would not recognize in an applicant's disclosure a description of the invention defined by the claims. Wertheim, 541 F.2d at 263, 191 USPQ at 97. In rejecting a claim, the examiner must set forth express findings of fact regarding the above analysis which support the lack of written description conclusion. These findings should:*

*(A) Identify the claim limitation at issue; and*

*(B) Establish a prima facie case by providing reasons why a person skilled in the art at the time the application was filed would not have recognized that the inventor was in possession of the invention as claimed in view of the disclosure of the application as filed. A general allegation of "unpredictability in the art" is not a sufficient reason to support a rejection for lack of adequate written description."*



The arguments presented by the Examiner fail to establish the prima facie case required to sustain a §112 first paragraph rejection for a single claim in at least three ways:

1. the first way the 17 November 2008 Office Action fails to establish the prima facie case that the specification does not meet the requirements of §112 first paragraph is that the Examiner has not identified any reasons why a person skilled in the art at the time the application was filed would not have recognized that the inventor was in possession of the invention as claimed. To the contrary, there is substantial evidence that the comments regarding the written description were provided by individuals and an organization that lacks the necessary skill in the relevant arts to understand the claimed invention;
2. the second way the 17 November 2008 Office Action fails to establish the prima facie case that the specification does not meet the requirements of §112 first paragraph is that the Examiner has only made general allegations and conclusory statements (See prior 35 U.S.C. § 101 Rejection of Claims discussion); and
3. the third way the 17 November 2008 Office Action fails to establish a prima facie case that the specification does not meet the requirements of §112 first paragraph is that the Examiner has not identified the claim limitation(s) at issue.

The Assignee submits that the assertion that the specification does not meet the requirements of §112 first paragraph also fail under both standards of the APA. First, as detailed above, the Examiner has not provided any evidence to support these allegations. As a result, the §112 first paragraph rejection of claims 175 - 197 fails under the substantial evidence standard. Second, a comparison of the method disclosed in the instant application with the description contained in a recently issued patent shows that the rejections fail under the arbitrary and capricious standard for a variety of reasons including the fact that the instant application has no identifiable subjectivity in model development while considerable subjectivity appears to be present in a recently issued patent (7,282,982) and in Pant for completing similar tasks. Further evidence of the arbitrary and capricious nature of the claim rejections can be found by examining prior U.S.P.T.O. fact findings that have thoroughly documented the Examiner's inability to understand the scientific and/or engineering principles applicable to the pertinent art (see Appendix for details).

Summary of 10/750,792	Summary of 7,283,982 filed in 2003
1. Transform raw data into indicators using pre-programmed functions and Linus/AQ algorithms	1. Use <u>any</u> technique to derive a basic model
2. Develop an initial model using the raw and transformed data as inputs by: <ul style="list-style-type: none"> <li>a) creating parallel models using different specified algorithms,</li> <li>b) using <u>stepwise regression</u> to identify the best set of input variables for the models for each algorithm type</li> </ul>	2. Develop an initial model by: <ul style="list-style-type: none"> <li>a) deriving features from the input to the basic model using <u>any</u> current transform regression algorithm, and</li> <li>b) using <u>stepwise regression</u> to select the input features for the initial regression model</li> </ul>
3. Refine the variable selection from 2b) and then transform the resulting set of input variables into summaries using different specified algorithms. Select the best summary using cross validation.	3. Complete a non-linear transformation of an explanatory input feature(s) from the initial model.
	4. Use the transformed input features to create a new linear regression model
4. Use the best set of variables from 3 in a plurality of models and select the model with lowest error	5. Combine the output of the new linear regression model with the output of the initial model and use the sum to provide a final model for the current iteration
	6. Repeat steps 3 through 5 indefinitely

As shown above, both the instant application and issued patent methods rely on stepwise regression for the input variable selection step. The use of stepwise regression for variable selection and the development of summaries from the selected variables has been judged to be obvious (see 103 rejection discussion) and/or too subjective in the instant application and in related applications that develop models (it was equated with the use of fear and emotion in an Office Action for application 09/688,983) while the issued patents reliance on the exact same technique was judged to be novel and concrete when used in model development some four years later. Furthermore, the written description for the issued patent (7,283,982) appears:

- a) to be missing a critical step, that can render the claimed method unstable, and
- b) to be more subjective than the written description for the Asset Reliance application because: one step in the issued patent method calls for the use of “any” model, another step in the issued patent method calls for the use of “any” current transform regression algorithm, and the number of iterations is not specified. By way of contrast, the instant application specifically identifies the algorithms used at every step of the model development process and does not use an open ended model development process.

While no rebuttal is required, the Assignee also notes that a declaration has been provided which also could be used to provide a complete rebuttal of the unsubstantiated allegations contained in the 12 November 2008 Office Action regarding a lack of written description. The declaration memorializes the only known independent review of the instant application by an individual with the level of skill in the art required to author a valid opinion regarding a written description.

Rather than providing evidence that would support claim rejections, the 35 U.S.C. §112 first paragraph rejections in the 17 November 2008 Office Action provide additional evidence that the Examiner(s) signing the Office Action do not understand the scientific and/or engineering principles applicable to the pertinent art. As detailed in the specification, most of the data used in developing models is identified automatically as it is raw data from identified databases, database data that has been transformed by a LINUS algorithm or data that has been transformed using pre-programmed functions (i.e. for expected value drivers). The user is asked to provide input that specifies the data structure and does have the ability to input some data (such as keywords). The data structure and data input are tested and required corrections (if any) are made using the steps detailed in the specification. As detailed in the specification, the variables used in a completed model are first selected by a stepwise regression algorithm. These variable selections are refined by induction algorithms and the best set of variables from the induction algorithm step are then selected with the use of a cross validation algorithm. The final step involves using the output from the induction step to develop a plurality of models before selecting the best model with a mean squared error algorithm. No one who understood the scientific and/or engineering principles applicable to the pertinent art would ever suggest that a process that relies on weights obtained from a model created by using stepwise regression, cross validation and the mean squared error algorithm to analyze a validated set of data was arbitrary or subjective.

### **35 U.S.C. § 112 Second Paragraph Rejections**

In the 17 November 2008 Office Action the Examiner has rejected claims 175 - 197 under 35 U.S.C. §112 first paragraph as lacking a written description that would enable those of average skill in the art to make and use the claimed invention.

The Assignee will traverse the §112 second paragraph rejection of claims 175 - 197 in three ways. First, by noting that the Office Action has failed to establish a prima facie case that the specification does not meet the requirements of §112 second paragraph. Second, by noting

that the assertions regarding the alleged lack of written description are not in compliance with the both standards of the Administrative Procedures Act and are therefore moot. Third by noting the rejections are non-statutory. The claim rejections are non-statutory because there is no statutory basis for giving any consideration to a written description rejection authored by individuals and/or an organization with a well documented lack of the required level of average or ordinary skill in the relevant art(s).

As mentioned previously, the first way the Assignee will traverse the 35 U.S.C. §112 second paragraph rejection of claims 175 - 197 will be by noting that the arguments presented by the Examiner fail to establish the prima facie case required to sustain a §112 second paragraph rejection. *MEPEP 2173.02 states that: definiteness of claim language must be analyzed, not in a vacuum, but in light of:*

*(A) The content of the particular application disclosure;*

*(B) The teachings of the prior art; and*

*(C) The claim interpretation that would be given by one possessing the ordinary level of skill in the pertinent art at the time the invention was made.*

*In reviewing a claim for compliance with 35 U.S.C. 112, second paragraph, the examiner must consider the claim as a whole to determine whether the claim apprises one of ordinary skill in the art of its scope and, therefore, serves the notice function required by 35 U.S.C. 112, second paragraph, by providing clear warning to others as to what constitutes infringement of the patent. See, e.g., Solomon v. Kimberly-Clark Corp., 216 F.3d 1372, 1379, 55 USPQ2d 1279, 1283 (Fed. Cir. 2000). See also In re Larsen, No. 01-1092 (Fed. Cir. May 9, 2001). In the case of claims 175 - 197 the Examiner has failed to establish the prima facie case that the specification does not meet the requirements of §112 second paragraph in four ways for every rejected claim. The four ways are:*

- 1. by failing to interpret the claims in light of the specification,*
- 2. by failing to provide any evidence that someone of average skill in the relevant arts would have difficulty interpreting the claims,*
- 3. by failing to establish that the limitation(s) in the claims fail to describe the invention and/or*
- 4. by failing to consider the claim as a whole.*

The detail cited under the discussion of the §112 first paragraph rejection discussion of failure to comply with the APA also supports the arguments regarding the APA under this section.

### Request for Correction

In accordance with the relevant statutes and precedents the Assignee is entitled to expect and receive: an unbiased patent application examination conducted by an Examiner with knowledge of the relevant arts who follows the law. To date, the activity associated with the instant patent application bears no resemblance to the patent application examination standards dictated by statute and precedent. Among other things this has resulted in the allowance and issue of dozens of apparently invalid patents. Prompt correction is requested.

### Reservation of rights

The Assignee hereby explicitly reserves the right to present the previously modified and/or canceled claims for re-examination in their original format. The cancellation or modification of pending claims to put the instant application in a final form for allowance and issue is not to be construed as a surrender of subject matters covered by the original claims before their cancellation or modification.

### Conclusion

Rejection of a patent application requires substantial evidence (Comiskey, Gartside). The November 17, 2008 Office Action does not contain any evidence that would support the rejection of a single claim. However, the November 17, 2008 Office Action for the above referenced application does provide substantial evidence that:

- a) those authoring the Office Action do not appear to understand any of the scientific and/or engineering principles applicable to the pertinent art,
- b) those authoring the Office Action do not adhere to any of the well established requirements for authoring valid claim rejections, and
- c) those authoring the Office Action appear to have based the claim rejections on the use of different standards than those used for the review of similar applications filed by larger companies.

The pending claims are of a form and scope for allowance. Prompt notification thereof is requested.

Respectfully submitted,

Asset Trust, Inc.

/B.J. Bennett/

B.J. Bennett, President

Date: February 16, 2009

## APPENDIX

(material from other co-pending applications has been provided and is being provided in accordance with the provisions of MPEP § 2001.06(b))

A review of other recent Office Actions authored by the Examiner(s) for the above referenced application provides substantial additional evidence that the Examiner(s) do(es) not appear to understand any of the scientific and/or engineering principles applicable to the pertinent art.

10/743,417 - In Office Actions for 10/743,417 the Examiner has attempted to use Sandretto and Jost in an attempt to render obvious an invention that uses the same model development method described in the instant application to develop and output causal predictive models. Jost teaches the development of a non-causal, neural network model for forecasting property values and identifying the characteristics/items of the property that correlate to that value. The Jost model development method relies exclusively on reducing an error measure by adjusting weights for different characteristics/items in a value model. No one who understood the scientific and engineering principles applicable to the pertinent art for 10/743,417 would ever suggest:

- 1) the use of an invention (Sandretto) that completely relies on the adjustment of an input variable to identify relationships between items in a portfolio and a portfolio value in an attempt to render obvious an invention that develops and outputs predictive models without relying on the adjustment of a single input variable,
- 2) the use of an invention (Jost) that completely relies on the adjustment of variable weights to produce a non-causal model as part of an attempt to render obvious an invention that can develop causal models without relying on the adjustment of a single variable weight, and/or
- 3) the use of two inventions with single stage, item level models in an attempt to render obvious an invention that teaches and relies on a three stage, element level model.

11/278,419 - In an Office Action for 11/278,419 the Examiners have attempted to use Sandretto together with U.S. Patent Application 2002/0198811 (hereinafter Wizon) and U.S. Patent Application 2006/0059064 (hereinafter Glinberg) in an attempt to render obvious an invention that uses a model development method similar to the one described in the instant application to develop models of financial performance and then use those models to support the simulation, measurement and optimization of value and risk by segment of value, element of value and external factor under a plurality of scenarios. The risk analysis method Wizon teaches for individual assets is the risk analysis technique associated with the previously disclosed Capital Asset Pricing Model (CAPM) and the risk analysis method

Wizon teaches for groups of assets is the previously disclosed VaR metric. Glinberg teaches a system for efficiently using collateral for risk offset when portfolio risk is analyzed using the previously disclosed Standard Portfolio Analysis of Risk system (hereinafter the SPAN system) the Theoretical Intermarket System (hereinafter, TIMS) and/or the OMS II system. SPAN, TIMS and OMSII analyze risk on the basis of price changes without identifying or analyzing the source(s) of risk using standard scenario assumptions that are not related to the actual or expected variability associated with the actual sources of risk and/or the actual portfolio being analyzed. No one who understood the scientific and engineering principles applicable to the pertinent art for 11/278,419 would ever suggest:

- 1) the use of an invention (Sandretto) that completely relies on the adjustment of an input variable to identify relationships between items in a portfolio and a portfolio value in an attempt to render obvious an invention that develops and outputs organization finance models without relying on the adjustment of a single input variable,
- 2) the use of an invention (Wizon) that relies on a Capital Asset Pricing Model method in an attempt to render obvious an invention that measures and optimizes risk by completing simulations that rely on information developed using a method similar to the method disclosed herein,
- 3) the use of an invention (Wizon) that relies on Value at Risk metrics in an attempt to render obvious an invention that measures and optimizes risk by completing simulations that rely on information developed using a method similar to the method disclosed herein, and/or
- 4) the use of an invention (Glinberg) that uses SPAN, TIMS and OMSII to analyze risk on the basis of security price changes without identifying or analyzing the source(s) of risk that are not related to the actual or expected variability associated with the actual sources of risk and/or the actual portfolio being analyzed in an attempt to render obvious an invention that simulates, measures and optimizes value and risk by among other things identifying the specific sources of said risk and their impact on financial performance.